Amendments to the Specification

The paragraph starting at page 21, line 17 has been amended as follows.

C1

The automatic sheet feed unit M3022 in this embodiment horizontally feeds one of print sheets stacked at an angle of about 30-60 degrees to the horizontal plane, so that the sheet is discharged out of a sheet feed port (not shown) into the printer body while being kept in an almost horizontal attitude.

The paragraph starting at page 21, line 23 has been amended as follows.

C2

The automatic sheet feed unit M3022 includes feed rollers M3026, sheet guides M3024a, M3024b, a pressure plate M3025, an ASF base M3023, sheet separators M3027, and separation claws (not shown). The ASF base M3023 forms a housing of the automatic sheet feed unit M3022 and is provided at the back of the printer body. On the front side of the ASF the pressure plate M3025 supporting the print sheets is mounted at an angle of about 30-60 degrees to the horizontal plane and a pair of sheet guides M3024a, M3024b that guide the ends of the print sheets project forwardly. One of the sheet guides M3024b is movable in the sheet width direction to conform to the horizontal size (width) of the sheets.

The paragraph starting at page 22, line 10 has been amended as follows.

C3

Rotatably supported on the left and right sides of the ASF base M3023 is a drive shaft M3026a that is connected through a gear (not shown) to a PG motor and which has rigidly secured thereto a plurality of feed rollers M3026 semicircular in cross section.

The paragraph starting at page 22, line 27 has been amended as follows.

C4

In a transport path from the automatic sheet feed unit M3022 to the paper transport unit M3029, a PE lever M3020 urged clockwise in Fig. 3 by a PE lever spring M3021 is pivotally mounted on a chassis M3019 which is secured to the printer body M1000 and formed of a metal plate member with a predetermined rigidity. When the print sheet separated and fed from the automatic sheet feed unit M3022 moves along the path and its front end abuts against one end of the PE lever and pivots it, a PE sensor (not shown) senses the rotation of the PE lever M3020, detecting that the print sheet has entered into the transport path.

The paragraph starting at page 24, line 7 has been amended as follows.

C5, contd

The pinch rollers M3014 are rotatably mounted at the front end of pinch roller holders M3015 which ~~is~~ are pivotally supported on the chassis M3019. The pinch rollers M3014 are pressed against the LF roller M3001 by spiral spring-like pinch roller springs M3016 that bias the pinch roller holders M3015. As a result, the pinch rollers M3014 rotate following the rotation of the LF roller M3001 to feed forwardly the print

sheet, which was at rest in a looped state as described above, by gripping it between the pinch rollers M3014 and the LF roller M3001.

The paragraph starting at page 24, line 18 has been amended as follows.

C6

The rotation center of the pinch rollers M3014 is offset about 2 mm downstream of the rotation center of the LF roller M3001 in the direction of transport. Hence, the print sheet fed by the LF roller M3001 and the pinch rollers M3014 advances toward the lower right in Fig. 3 along a print sheet support surface M2001a (Fig. 5).

The paragraph starting at page 25, line 14 has been amended as follows.

C7

A print head cartridge H1000 described later moves, mounted on a carriage M4001, along a carriage shaft M4012 secured at its ends to the chassis M3019, the carriage M4001 being adapted to reciprocate in a direction (scan direction) perpendicular to the direction in which the print sheet is fed. As it travels in the scan direction, the print head cartridge H1000 ejects ink, according to ~~an~~ image information, onto the print sheet held at the print start position to form an image.

The paragraph starting at page 26, line 5 has been amended as follows.

The carriage shaft M4012 has its one end mounted on an adjust plate (not shown) through an adjust lever 2015 and the other end mounted on another adjust plate M2012 through a carriage shaft cam M2011. The carriage shaft M4012 is biased by a carriage shaft spring M2014. The adjust plate M2012 and the other adjust plate (not shown) are secured to the chassis M3019 so that the distance between the ejecting face of the print head cartridge H1000 and the print sheet support surface M2001a of the platen M2001 can be adjusted to be an appropriate value.

C8

The paragraph starting at page 26, line 16 has been amended as follows.

Further, the adjust lever 2015 can be selectively set at one of two stop positions, an upper end position shown in Fig. 1 and a lower end position (not shown). When the adjust lever 2015 is moved to the lower end position, the carriage M4001 is retracted about 0.6 mm from the platen M2001. Hence, if the print sheet is thick, as when an envelope is printed, the adjust lever 2015 is moved to the lower end position before the sheet feeding operation by the automatic sheet feed unit M3022 is started.

C9

The paragraph starting at page 29, line 25 has been amended as follows.

C10 cont'd

Then, the print head H1001, as shown in the perspective view of Fig. 5, comprises a print element substrate H1100, a first plate H1200, an electric wiring board

C10 end

H1300, a second plate H1400, a tank holder H1500, a flow passage forming member H1600, a filter H1700 and a ~~seal~~ rubber seal H1800.

The paragraph starting at page 31, line 5 has been amended as follows.

C11

The tank holder H1500 that removably holds the ink tank H1900 is securely attached, as by ultrasonic fusing, with the flow passage forming member H1600 to form an ink passage H1501 from the ink tank H1900 to the first plate H1200. At the ink tank side end of the ink passage H1501 that engages with the ink tank H1900, a filter H1700 is provided to prevent external dust from entering. A ~~seal~~ rubber seal H1800 is provided at a portion where the filter H1700 engages the ink tank H1900, to prevent evaporation of the ink from the engagement portion.

The paragraph starting at page 31, line 16 has been amended as follows.

C12

As described above, the tank holder unit, which includes the tank holder H1500, the flow passage forming member H1600, the filter H1700 and the ~~seal~~ rubber seal H1800, and the print element unit, which includes the print element substrate H1100, the first plate H1200, the electric wiring board H1300 and the second plate H1400, are combined as by adhesives to form the print head H1001.

The paragraph starting at page 32, line 25 has been amended as follows.

An elastic member such as rubber (not shown) is provided between a contact unit E0011a of a contact FPC E0011 and the carriage M4001. The elastic force of the elastic member and the pressing force of the head set lever spring combine to ensure a reliable contact between the contact unit E0011a and the carriage M4001. The contact FPC E0011 is drawn to the sides of the carriage M4001 and, as shown in Figs. 9 and 10, has its end portions securely held to the sides of the carriage M4001 by a pair of FPC retainers M4003, M4006. The contact FPC E0011 is connected to a carriage printed circuit board E0013 mounted on the back of the carriage M4001 (see Fig. 10).

C13

The paragraph starting at page 33, line 11 has been amended as follows.

As shown in Fig. 10, the carriage printed circuit board E0013 is electrically connected through a carriage flexible flat cable (carriage FFC) to a main printed circuit board mounted on the chassis M3019 (see Fig. 15), which will be described later. Further, as shown in Fig. 10, at a joint portion between one end of the carriage FFC and the carriage printed circuit board a pair of retainer members, flexible flat cable retainers ~~(FCC~~ (FFC retainers) M4015, M4016, are provided to fixedly secure the carriage FFC to the carriage printed circuit board. Also installed at the joint portion is a ferrite core M4017 that shields electromagnetic ~~radiations~~ radiation emitted from the carriage FFC and others.

C14

The paragraph starting at page 33, line 25 has been amended as follows.

C15

The other end of the carriage FFC is fixed to the chassis M3019 (Fig. 2) by an FFC retainer M4028 (Fig. 2) and then drawn out to the rear side of the chassis M3019 through a hole (not shown) in the chassis M3019 and connected to the main printed circuit board.

The paragraph starting at page 38, line 9 has been amended as follows.

C16

The absorbing member M5002 disposed in this way can accept ink drawn out from the print head cartridge H1000 during the suction operation. Further, the ink in the cap M5001 can be discharged ~~out~~ into a used ink absorbing member completely by an evacuation operation described later. The cap M5001 is connected with two tubes, a cap tube M5009 and a valve tube M5010. The cap tube M5009 is connected to a pump tube M5019 of a pump M5100 described later and the valve tube M5010 to a valve rubber M5036 described later.

The paragraph starting at page 38, line 19 has been amended as follows.

C17, cont'd

The wiper blades M5011, M5012-1, M5012-2 are made of elastic members such as rubber and are erected on a blade holder M5013 so that their edges project upward. The blade holder M5013 has a lead screw M5031 inserted therethrough with a projection (not shown) of the blade holder M5013 movably engaging ~~in~~ a groove formed in the lead screw M5031. As the lead screw M5031 rotates, the blade holder M5013 moves back and

forth along the lead screw M5031 in the direction of arrow B1 or B2 (Fig. 12), causing the wiper blades M5011, M5012-1, M5012-2 to wipe clean the print element substrate H1100 of the print head cartridge H1000. The lead screw M5031 is connected to one side of the PG motor E0003 through the one-way clutch M5041 and a wiper drive transmission gear train M5120.

C17 end

The paragraph starting at page 39, line 26 has been amended as follows.

The drive path switching means has a pendulum arm M5026 and a selector lever M5043. The pendulum arm M5026 is pivotable about a shaft M5026a in the direction of arrow C1 or C2 (Fig. 11) depending on the rotation direction of the PG motor E0003. The selector lever M5043 is switched according to the position of the carriage M4001. That is, when the carriage ~~moves~~ M4001 moves to a position over the ejection performance recovery unit M5000, a part of the selector lever M5043 is contacted by a part of the carriage M4001 and moved in the direction of arrow D1 or D2 (Fig. 11) depending on the position of the carriage M4001, with the result that a lock hole M5026b of the pendulum arm M5026 and a lock pin M5043a of the selector lever M5043 engage.

C18

The paragraph starting at page 40, line 14 has been amended as follows.

The valve rubber M5036 is connected with one end of the valve tube M5010, the other end of which is connected to the cap M5001. A valve lever M5038 is

C19 cont'd

connected to the discharge roller 2003 (Fig. 5) through a valve cam M5035, a valve clutch M5048 and a valve drive transmission gear train M5140. As the discharge roller 2003 rotates, the valve lever M5038 is pivoted about a shaft M5038a in the direction of arrow E1 or E2 to come into or out of contact with the valve rubber M5036. When the valve lever M5038 is in contact with the valve rubber M5036, the valve is closed. When the lever is parted, the valve is open.

C19 end

The paragraph starting at page 44, line 11 has been amended as follows.

Step S10 performs the printing termination processing to stop the operation of the apparatus. That is, to turn off various motors and the print head, this step renders the apparatus ready to be cut off from the power supply and then turns off power, before moving to step S4 waiting for the next event.

C20

The paragraph starting at page 45, line 11 has been amended as follows.

Hence, in this embodiment, too, there is always a discard area around each image and the print medium has three vertical discard areas 7a, 7b, 7c and three horizontal discard areas 8a, 8b, 8c. A distance from the front end of the print medium 1 to the first horizontal perforation line 3a (width of the discard area 8a) is taken to be WT, a distance between the second and third horizontal perforation lines 3b and 3c situated between the print areas 4a, 4b and the print areas 4c, 4d (width of the discard area 8b) is taken to be

C21 Cont'd

WC, and a distance from the rear end of the print medium 1 to the fourth horizontal perforation line 3d (width of the discard area 8c) is taken to be WB. A distance from the left end of the print medium 1 to the first vertical perforation line 2a (width of the discard area 7a) is taken to be WL, a distance between the second and third vertical perforation lines 2b, 2c ~~(with~~ (width of the discard area 7b) is taken to be WM, and a distance from the right end of the print medium 1 to the fourth vertical perforation line 2d (width of the discard area 7c) is taken to be WR.

C21 end

The paragraph starting at page 48, line 3 has been amended as follows.

C22

~~Fig.~~ Figs. 16A, 16B, and 16C ~~shows~~ show the action of the separation/feeding means, in which the separation means uses a claw 13a for separating sheets.

The paragraph starting at page 48, line 21 has been amended as follows.

C23

If the distance from the front end Sa of the print medium S to the first horizontal perforation line 3a is set smaller than the distance X, when the print medium S fed by the feed roller 11 deflects as shown in Fig. 16B, the print medium S may bend along the perforation line formed in the deflected portion as shown in ~~Fig.16c~~ Fig. 16C and fail to be fed normally.

The paragraph starting at page 56, line 15 has been amended as follows.

C24

In this embodiment, the explanation centered on a so-called four-image type print medium S which has four divided print areas. It should be appreciated that the present invention can similarly be implemented in print mediums S that are formed with two, six, eight or ~~other~~ another number of images. A print medium with eight print areas ~~are~~ is shown in Fig. 22 as another example.